



Preparing for Influenza Season - 2018

Scenario: The U.S. has seen more people catch the flu than usual in recent years. Hospitals and clinics expect to need additional staff to adequately treat higher numbers of patients. A nationwide medical staffing agency specializes in providing temporary staff to handle potential patient overflow.

Objective: Create a report for the staffing agency determining when to send temporary staff, and how many, to each state.

Key Points: **Gather facts to derive a plan directing when and where to send staff. **Determine if there is an identifiable seasonality to when influenza occurs in each state. **Create a hierarchy favoring states with larger vulnerable populations.

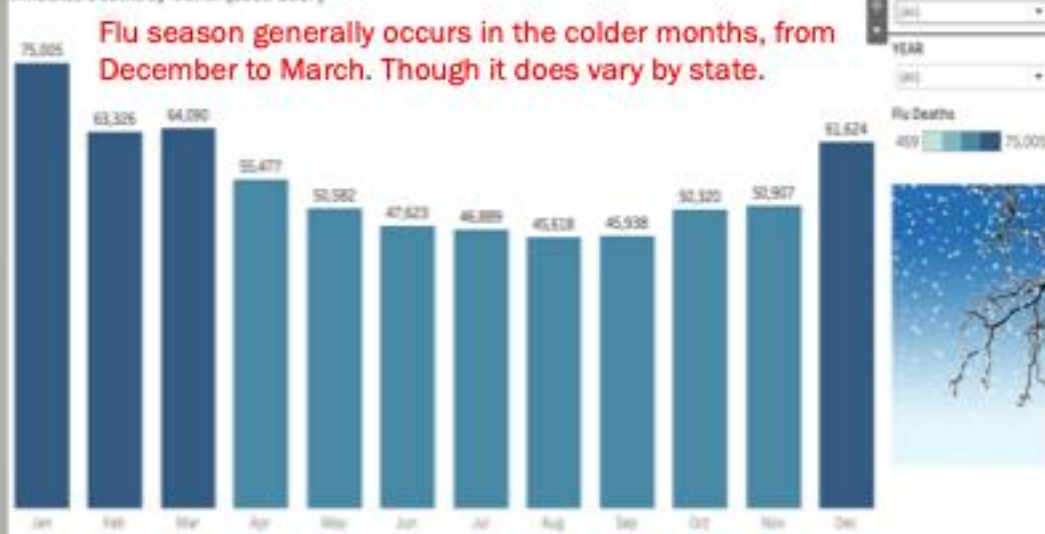
Data sets: [Influenza deaths by geography](#): From cdc.gov includes deaths by age group from 2009 – 2017. [Population data](#): From census.gov includes population by geography, time, age, and gender.



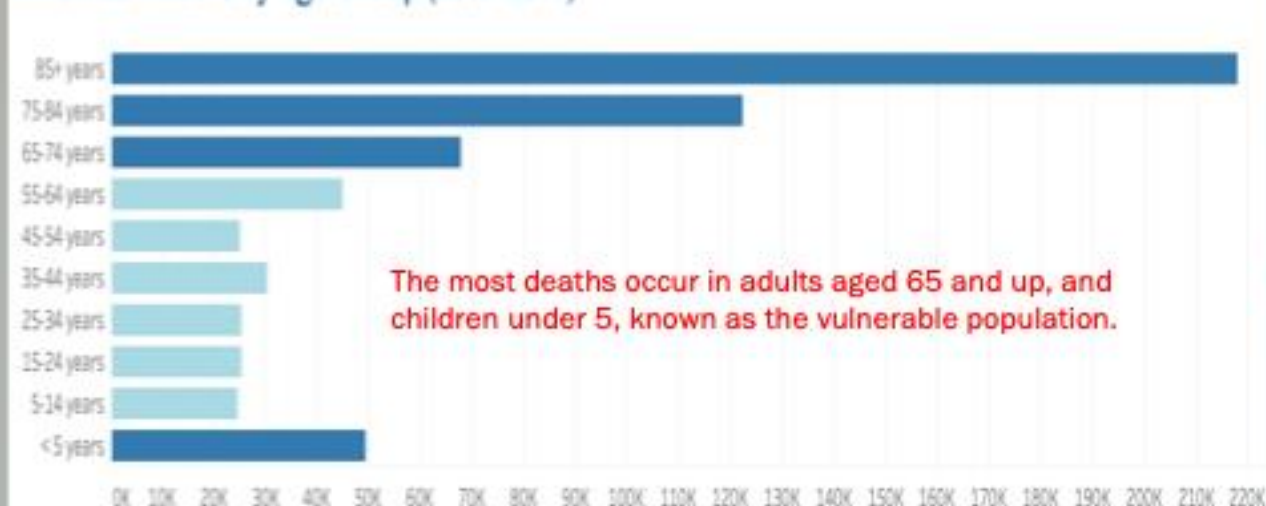
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Data Discoveries:

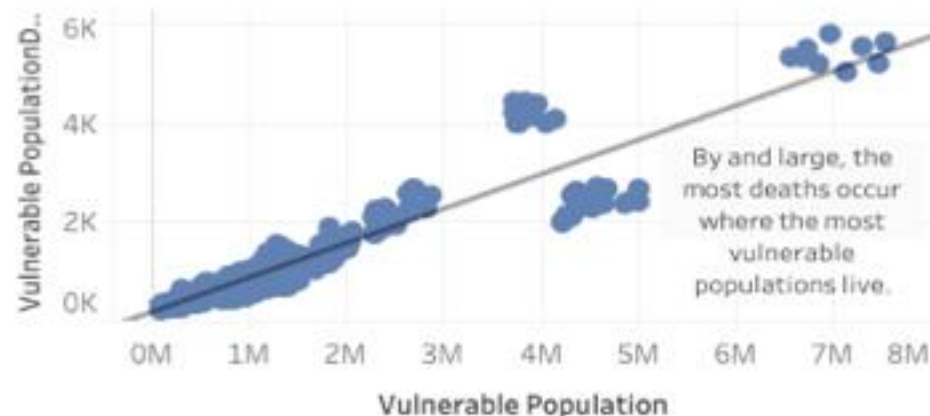
Influenza Deaths by Month (2009-2017)



Influenza Deaths by Age Group (2009-2017)



Correlation between vulnerable population and vulnerable population deaths (2009-2017)





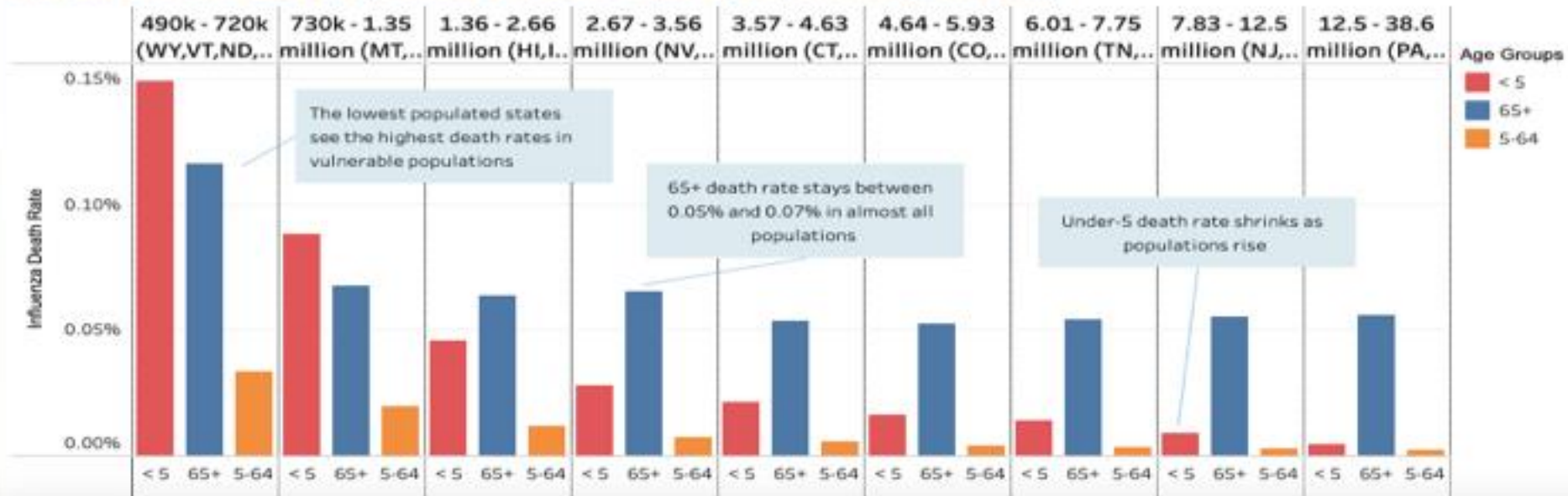
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Data Discoveries:

Vulnerable Population Death Rate (2009-2017)



Influenza Death Rate by Age Across States Grouped by Population (2009-2017)





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Recommendations:

- The most staffing assistance is needed in areas with the highest vulnerable populations.
- Send staff in the first month when flu historically spikes.

California --> December

New York --> December

Texas --> December

Pennsylvania --> November

Florida --> November

Illinois --> November

Ohio --> November

North Carolina --> December

Michigan --> November (on-call in October)

Georgia --> November

New Jersey --> October

-Focus on vulnerable populations should be advised everywhere but especially in states with highest flu death rates.

-Flu shots should be advised everywhere for everyone but especially for those who fall in the vulnerable populations in the lowest populated states.

-On-call staffing year-round in these states.

Wyoming

Vermont

North Dakota

South Dakota

Alaska

District of Columbia

Rhode Island

Delaware

See full interactive Tableau story board [here](#).